EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 10313277
PUBLICATION DATE : 24-11-98

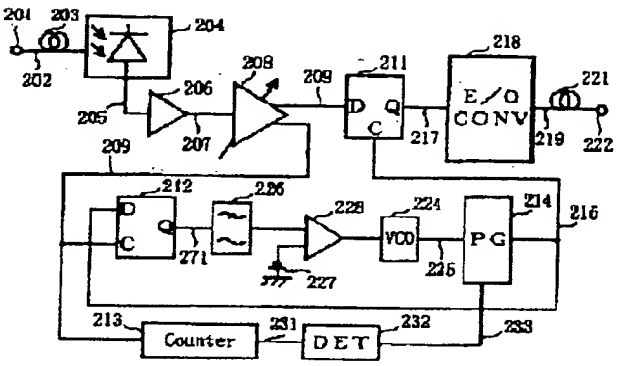
APPLICATION DATE : 12-05-97
APPLICATION NUMBER : 09121277

APPLICANT : NEC CORP;

INVENTOR : ASAHI KOJI;

INT.CL. : H04B 10/17 H04B 10/16 H03K 5/00 H04B 10/00 H04L 7/033

TITLE : BIT RATE AUTOMATIC IDENTIFICATION DEVICE, BIT RATE SELECTION TYPE TIMING EXTRACT DEVICE, BIT RATE SELECTION TYPE IDENTIFICATION REGENERATING DEVICE, BIT RATE SELECTION TYPE OPTICAL REGENERATIVE REPEATER AND BIT RATE AUTOMATIC IDENTIFICATION METHOD



ABSTRACT : PROBLEM TO BE SOLVED: To obtain a bit rate selection type optical regenerative repeater with an excellent transmission characteristic by selecting pluralities of bit rates so as to effectively utilize a wavelength component inexpensively.

SOLUTION: An optical signal 202 subject to intensity modulation by a data signal is given to a photo diode 204, where the signal is converted into an optical current 205, converted into an electric data signal 207 at a preamplifier 206 and an electric data signal 209 with a prescribed amplitude is obtained by a variable gain amplifier 208. An identification circuit 211 identifies and regenerates an electric data signal 217 by a clock signal 215 outputted from a pulse generating circuit 214 and an electrooptic conversion circuit 218 converts the signal 217 into an optical signal and it is outputted to an output terminal 222. Based on the electric data signal 209 outputted from the variable gain amplifier 208, a bit rate detector 232 detects a bit rate of an optical signal and a pulse generating circuit 214 uses the information to regenerate a clock signal 215 synchronously with the electric data signal 209 and gives it to an identification circuit 211. Thus, it is not required to transmit/receive the clock signal other than the data signal.